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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/550,476	04/14/00	DEKOCK	B	BWD-7118.004

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EXAMINER	
MARC COLEMAN, M	
ART UNIT	**PAPER NUMBER**
3661	5

DATE MAILED: 01/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/550,476	DEKOCK ET AL.	
	Examiner	Art Unit	
	Marthe Y. Marc-Coleman	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

1. Claims 1-38 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 7, 8, 11-13, 16, 19, 24-34, 37 and 38 are rejected under 35 U.S.C. 102(2) as being anticipated by Fan et al. (U.S. Patent No. 5,959,577).

In regard to claim 1, Fan et al. disclose :

- in one embodiment, using a GPS receiver, position information of a mobile unit is determined from positioning signals received from GPS satellites and pseudo-ranges derived from the positioning signals. The GPS receiver triangulates the pseudo-ranges to obtain a measured position of the mobile unit. The measured position is then transmitted via a data network to a data processing station. (see col. 1 line 64-col. 2 line 4); which corresponds to part (a) of claim 1;
- a GPS receiver of the mobile unit receives a positioning signal which contains code sequences from GPS satellite constellation 8 and converts the code (see col. 3 lines 16-20); which correspond to part (b) of claim 1.

- a data processing station 18 interconnected with said GPS satellite receiver 8 and said wireless network 10 (see Fig. 1); which correspond to part (c) of claim 1;

- a mobile unit 3 connected to a global positioning system receiver 8 (see Fig. 1), a mobile unit having a display (see Fig. 12), communicating device (see Fig. 1); which corresponds to step (d) of claim 1.

- an authorized monitor unit may request for a specific area map by sending a request through the data network. Upon receiving a request, the data processing unit sends the area map to the monitor unit. Data processing station may also perform a database search for travel-related information, such as directions to a gasoline station (see abstract); Fan et al. also disclose in one embodiment, using a GPS receiver, position information of a mobile unit is determined from positioning signals received from GPS satellites and pseudo-ranges derived from the positioning signals. The GPS receiver triangulates the pseudo-ranges to obtain a measured position of the mobile unit. The measured position is then transmitted via a data network to a data processing station. The data processing station organizes the measured position and generates an area map which indicates by a position marker the position of each mobile unit. This area map is made available to one or more monitor units connected to the data network. A mobile unit may also send a request for a database search through the data network to the data

processing station to obtain an area map or travel-related information (see col. 1 line 64-col. 2 line 24); Which corresponds to part (e) of claim 1.

In regard to claim 16, Fan et al. disclose that:

- one or more ground stations and many mobile units installed on the vehicles. In such a system, each mobile unit is equipped with a GPS receiver and a wireless transmitter. Using the GPS receiver, a mobile unit determines the position of the vehicle and then transmits the position directly to a ground station. The ground station receives the positions of all vehicles, and displays these positions on a digital map on a display device. The ground station of a conventional vehicle locating system normally also includes a map database search system, a media reader (e.g., a CD-ROM drive) and media (e.g., CD-ROMs) that store digital maps and travel-related information. Using the stored digital maps and positioning information received from the GPS satellites, the operator of the ground station can determine a present position for the vehicle (see col. 1 lines 26-40). Fan et al. also disclose identification code of said mobile user station and said transmitter transmitting said signal (see col. 4 lines 55-65); which corresponds to part (a) of claim 16.
- a GPS receiver of the mobile unit receives a positioning signal which contains code sequences from GPS satellite constellation 8 and converts the code (see col. 3 lines 16-20); which correspond to part (b) of claim 16.

- a data processing station 18 interconnected with said GPS satellite receiver 8 and said wireless network 10 (see Fig. 1); an authorized monitor unit may request for a specific area map by sending a request through the data network. Upon receiving a request, the data processing unit sends the area map to the monitor unit. Data processing station may also perform a database search for travel-related information, such as directions to a gasoline station (see abstract); Fan et al. also disclose in one embodiment, using a GPS receiver, position information of a mobile unit is determined from positioning signals received from GPS satellites and pseudo-ranges derived from the positioning signals. The GPS receiver triangulates the pseudo-ranges to obtain a measured position of the mobile unit. The measured position is then transmitted via a data network to a data processing station. The data processing station organizes the measured position and generates an area map which indicates by a position marker the position of each mobile unit. This area map is made available to one or more monitor units connected to the data network. A mobile unit may also send a request for a database search through the data network to the data processing station to obtain an area map or travel-related information (see col. 1 line 64-col. 2 line 24); Which corresponds to part (6) of claim 16.

In regard to claims 25, 26, and 34, Fan et al. disclose:

- a plurality of mobile user stations, each mobile user station being associated with a display, a display, a global positioning system receiver and a communicating device to allow each of said mobile user stations to send sand receive signals (see col.1 lines 24-40);
- a data processing station 18 interconnected with said GPS satellite receiver 8 and said wireless network 10 (see Fig. 1); said computer being capable of sensing and receiving signals to and from said mobile user stations (see Fig. 1); which corresponds to part (b) of claim 25;

  - said computer system including a map database and a traffic information database, said traffic information database containing data representative of traffic at a plurality or locations (see col. 4 lines 41-54); which corresponds to part (c) of claim 25;
- at least one of said mobile user stations providing a request to said computer system for information together with a respective geographic location of said one of said mobile user stations, and in response thereto, said computer system providing to said one of said mobile user stations information representative of selected portions of said map database and selected portions of said traffic information database based on said respective geographic location of said one of said mobile user stations (see col. 1 line 64-col. 2 line 24);

Fan et al. also disclose that said map information is displayed together with traffic information (see Figs. 12 and 13).

In regard to claims 7 and 8, Fan et al. disclose that at least one of said transmitters transmits directly to said receiver; at least one of said transmitters transmits to another traffic monitor (see Fig. 1 and col. 1 line 64-col. 2 line 24).

In regard to claims 11 and 30-32, Fan et al. disclose that the mobile unit provide latitude and longitude information to said computer system (see col. 3 lines 11-16 and col. 4 lines 55-65).

In regard to claim 12, Fan et al. disclose that said computer system selects said traffic information to provide to said mobile user station based on a signal received from said global positioning system receiver (see col. col. 1 line 64-col. 2 line 24).

In regard to claims 13, 19, 24, 27-29, 37 and 38, Fan et al. disclose that said computer system maintains a traffic information database containing data representative of traffic at a plurality of locations and updates said traffic information database in response to signals received from said mobile user station; they also disclose that the computer screens data providing by said mobile user stations to determine whether said data corresponds to actual traffic conditions (see col. 4 lines 41-65).

In regard to claim 33, Fan et al. disclose that the internet can be used as data network 27 (Fig. 1), the necessary hardware and software for implementing a monitor unit are readily available. Most computers that have the ability to access the Internet, together with a standard web browser, can be used to access data processing station 18, to perform the functions of the monitor units. Since a monitor unit can receive a map from data processing station18, such as the map displayed on LCD 212 in Fig. 13, which can be displayed using conventional graphics software, the monitor is not required to be equipped with any special map software or a map database. Because the cost of communication on Internet is inexpensive, a vehicle monitoring system can be deployed in a world-wide basis at minimum cost. Which means that information is displayed as an information banner on said display.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2-5, 9, 10, 14, 15, 17, 18, 20-23, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al. (U.S. Patent No. 5,959,577) in view of Lappenbusch et al. (U.S. Patent No. 5,982,298).

In regard to claims 2-4, 14, 17, 20-23, 35 and 36, although Fan et al. disclose a display (see Figs. 12 and 13), they do not specifically disclose that said traffic information transmitted by said computer system is displayed graphically on said display nor do they disclose that said traffic information is displayed together with a video image and a text message. Lappenbusch et al. disclose that said traffic information transmitted by said computer system is displayed graphically on said display; they also disclose that said traffic information is displayed together with a video image and a text message (see Figs. 4-8; col. 1 lines 28-33; and col. 9 lines 37-50).

At the time of the invention it would have been obvious to one skilled in the art to utilize Lappenbusch et al.'s graphical display with Fan et al.'s travel information system because it would provide a vehicle monitoring system that can deployed on a world-wide basis at minimum cost since the cost of communication in the internet is inexpensive (see Lappenbusch et al. col.11 lines 13-33).

In regard to claims 5 and 18, Fan et al. disclose that in addition to computing the corrected measured position, data processing station 18 searches a database 32 and associated area map storage 63 to process the operator's query received in the outbound data package. Database 32 maintains such travel-related information as maps, traffic situation in a particular area, positions of service stations and destinations of interest. Storage for

database 32 can be implemented using any mass storage media, such as hard disks, RAMs, ROMs, CD-ROMs, and magnetic tapes. For example, infrequently updated information (e.g., maps or destinations of interest) can be stored on CD-ROMs, while frequently updated information (e.g., current traffic conditions) can be stored on RAM. Database 32 is accessed by data processing unit 38 (see col. 4 lines 41-54). Fan et al. also disclose that said map information is displayed together with traffic information (see Figs. 12 and 13).

In regard to claims 9 and 10, Lappenbusch et al. disclose that at least one of said traffic monitors includes a video camera; at least said detector is a video camera (see Fig. 1).

At the time of the invention it would have been obvious to one skilled in the art to utilize Lappenbusch et al.'s camera with Fan et al.'s travel information system so that continuous images and live feeds conditions can be provided (see Lappenbusch et al. col.1 lines 15-18).

In regard to claims 15 and 21, Fan et al. disclose that said mobile user station has an input mechanism to select a mode in which traffic information graphically on said display (see Figs. 12 and 13).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al. (U.S. Patent No. 5,959,577) in view Akutsu et al. (U.S. Patent No. 5,987,374).

In regard to claim 6, although Fan et al. disclose GPS 8 to monitor vehicle movement, they do not specifically disclose that the GPS detect vehicular traffic speed.

Akutsu et al. disclose a vehicle traveling guidance system comprising:

a plurality of data providing devices installed on a road, wherein each of said data providing devices includes a detector for detecting speed and pass time of a vehicle passing over the vicinity thereof (see col. 8 lines 30-35).

At the time of the invention, it would have been obvious to one skilled in the art to utilize Akutsu et al.'s detector with Fan et al.'s 's travel information system so that congestion prediction with high accuracy can be achieved by considering both speed and the pass time of a vehicle (see Akutsu et al. col. 7 lines 25-29).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marthe Y. Marc-Coleman whose telephone number is (703) 305-4970. The examiner can normally be reached on Monday - Friday (5:30AM - 3:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

305-7687 for regular communications and (703) 308-8623 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1111.

Patent Examiner
MYM
Marthe Marc-Coleman

January 18, 2001

WILLIAM A. CUCHLINSKI, JR.
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